



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAY 22 2014

John Nelson, Environmental Program Manager
Massachusetts Water Resource Authority
100 First Avenue
Boston, Massachusetts 02129

Re: PCB Decontamination and Risk-Based Disposal Approval under 40 CFR § 761.61(c) and § 761.79(h)
Chelsea Creek Headworks Facility
Chelsea, Massachusetts

Dear Mr. Nelson:

This is in response to the Massachusetts Water Resource Authority ("MWRA") Notification¹ for approval of a proposed PCB decontamination and risk-based disposal plan at the Chelsea Creek Headworks Facility (the "Site") located at 340 Marginal Street in Chelsea, Massachusetts. The Site contains PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a), § 761.61(a) and § 761.62. Specifically, PCBs at greater than or equal to ("≥") 50 parts per million ("ppm") have been found in paint and caulk and in building substrates (e.g., concrete) at the Site.

In its Notification, MWRA is proposing the following PCB abatement activities:

- Remove all visible PCB-containing paint from *porous surfaces* (with exception of the building siding pink paint) and dispose of as *PCB bulk product waste* in accordance with § 761.62(a);
- Remove all visible caulk and adjacent *porous surfaces* (i.e., one course of brick or CMU and associated mortar) and dispose of as *PCB bulk product waste* in accordance with 40 CFR § 761.62(a);

¹ Information was submitted by MWRA to satisfy the notification requirement under 40 CFR §§ 761.61(c) and 761.79(h). Information was provided dated May 13, 2013 (Risk-Based PCB Abatement); March 26, 2014 (email Response to January 8, 2014 EPA Comments); April 11, 2014 (Risk-Based PCB Abatement Plan); May 1, 2014 (email Risk-Based Disposal Plan April 2014); May 16, 2014 (email Response to May 12, 2014 EPA comments); and May 19, 2014 (verbal discussion with MWRA on verification sampling of *non-porous surfaces*). These submissions will be referred to as the "Notification".

- Remove and dispose of PCB painted *non-porous surfaces* as a *PCB bulk product waste* or decontaminate to achieve a NACE Visual Standard No. 2 or a less than or equal to (" \leq ") 10 $\mu\text{g}/100\text{ cm}^2$ PCB cleanup standard;
- Decontaminate PCB-contaminated *non-porous surfaces* located adjacent to caulk to achieve a $\leq 10\text{ }\mu\text{g}/100\text{ cm}^2$ PCB cleanup standard;
- Encapsulate PCB-contaminated *porous surfaces* with greater than (" $>$ ") 1 ppm with two (2) coats of a contrasting color epoxy coating;
- Establish a long-term monitoring and maintenance plan for encapsulated surfaces; and,
- Record a notice on the deed to document Site conditions and to identify restricted activities and the long-term monitoring and maintenance requirements.

MWRA had determined that the pink paint located on the building siding which has a PCB concentration at $< 50\text{ ppm}$, meets the criteria for an *Excluded PCB product* under § 761.3. Under the PCB regulations, *Excluded PCB products* are not regulated for cleanup and disposal. However, in the event that MWRA determines that this paint is not an *Excluded PCB product*, MWRA will be required to comply with the cleanup and disposal requirements under 40 CFR § 761.61 and § 761.62.

The proposed encapsulation of PCB-contaminated *porous surfaces* following removal of the PCB paint should effectively prevent direct exposure of these PCB-contaminated surfaces to building users. EPA has determined that the encapsulation will not result in an unreasonable risk of injury to public health or to the environment provided the coatings are maintained and indoor conditions are monitored. EPA may approve the encapsulation under 40 CFR § 761.61(c).

For *non-porous surfaces*, EPA has determined that decontamination (e.g., removal of paint and/or caulk) to achieve a $\leq 10\text{ }\mu\text{g}/100\text{ cm}^2$ is consistent with the PCB cleanup requirements for *non-porous surfaces* under § 761.61(a) and will not result in an unreasonable risk of injury to public health or the environment. EPA may approve the decontamination under 40 CFR § 761.79(h).

MWRA may proceed with its cleanup in accordance with 40 CFR § 761.61(c); § 761.62; § 761.79(h); its Notification; and this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA is reserving its rights to require additional investigation or mitigation measures should the results of the initial post-abatement sampling or the results of the long-term monitoring sampling indicate an unreasonable risk to Site users.

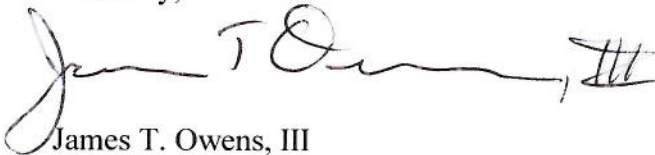
As PCB concentrations at > 1 ppm will remain at the Site following completion of the abatement work, MWRA will be required to record a notice on the deed and to develop a long term monitoring and maintenance plan for encapsulated surfaces and indoor air (Attachment 1, Conditions 16 and 20).

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527 / Facsimile: (617) 918-0527

EPA shall consider this project complete only when it has received documents evidencing completion of the encapsulation and initial post-abatement monitoring, adoption of the deed restriction/activity and use limitations, and development of a long-term monitoring and maintenance plan. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

A handwritten signature in black ink, appearing to read "James T. Owens, III". The signature is fluid and cursive, with a large initial "J" and a distinct "III" at the end.

James T. Owens, III
Director, Office of Site Remediation & Restoration

cc MassDEP - Boston
File

Attachment 1: Approval Conditions

ATTACHMENT 1

**PCB APPROVAL CONDITIONS
CHELSEA CREEK HEADWORKS
340 MARGINAL STREET / CHELSEA, MASSACHUSETTS**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* identified in the Notification.²
2. Massachusetts Water Resource Authority ("MWRA") shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
3. In the event that the PCB remedial plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. MWRA must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, MWRA shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. MWRA is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time MWRA has or receives information indicating that MWRA or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

² Information was submitted by MWRA to satisfy the notification requirement under 40 CFR §§ 761.61(c) and 761.79(h). Information was provided dated May 13, 2013 (Risk-Based PCB Abatement); March 26, 2014 (email Response to January 8, 2014 EPA Comments); April 11, 2014 (Risk-Based PCB Abatement Plan); May 1, 2014 (email Risk-Based Disposal Plan April 2014); May 16, 2014 (email Response to May 12, 2014 EPA comments); and May 19, 2014 (verbal discussion with MWRA on verification sampling of *non-porous surfaces*). These submissions will be referred to as the "Notification".

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by MWRA are authorized to conduct the activities set forth in the Notification. MWRA is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release MWRA from compliance with any applicable requirements of federal, state or local law; or 3) release MWRA from liability for, or otherwise resolve, any violations of federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from MWRA of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. MWRA shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 1 business day prior to conducting any work under this Approval.
12. Prior to initiation of work authorized under this Approval, MWRA shall submit the following information for EPA review and/or approval:
 - a. a certification signed by its selected abatement contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval;
 - b. a contractor work plan, prepared and submitted by the selected abatement contractor(s) describing the means and methods of paint and caulk removal, and the containment and air monitoring that will be employed during abatement activities. This work plan should also include information on how and where wastes will be stored and disposed of, and on how field equipment will be decontaminated; and,
 - c. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

CLEANUP AND DISPOSAL CONDITIONS

13. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools or construction of a negative air containment system with a HEPA ventilation system to control emissions, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
14. PCB-contaminated *porous surfaces* (e.g., concrete) and *non-porous surfaces* shall be decontaminated and verification sampling and analysis shall be conducted as described below:
 - a. All visible residues of PCB paint and caulk (i.e., *PCB bulk product waste*) shall be removed from the surfaces as described in the Notification.
 - b. The cleanup standard for *non-porous surfaces* (e.g., metal surfaces) shall be the NACE Visual Standard No. 2 as specified under 40 CFR § 761.79(b)(3)(i)(B). In the event this standard cannot be achieved, the PCB cleanup standard shall be less than or equal to (\leq) 10 $\mu\text{g}/100\text{ cm}^2$ and the following shall apply:
 - i) All post-cleanup verification sampling for decontaminated *non-porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu\text{g}/100\text{ cm}^2$). A minimum of one (1) sample shall be collected from each decontaminated *non-porous surface* that will not be removed from the Site.
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.
 - c. Decontaminated *porous surfaces* with greater than (“>”) 1 part per million (“ppm”) PCBs shall be encapsulated with a minimum 2 coats of contrasting color of an epoxy coating.
 - i) Following encapsulation of the PCB-contaminated *porous surfaces*, post-encapsulation surface sampling and indoor air sampling shall be conducted to determine the effectiveness of the encapsulation.
 - (1) Indoor air sampling shall be conducted in accordance with EPA Method TO-10A or EPA Method TO-4A. Sufficient sample volumes shall be collected to provide a laboratory reporting limit of less than ($<$) 100 ng/m^3 for total PCBs. PCB analysis shall be conducted for PCB homologues and/or PCB congeners by EPA Method 680 or EPA Method 1668 or an equivalent method.

- (2) Wipe sampling of encapsulated surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu\text{g}/100\text{ cm}^2$). Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q.
 - (3) In the event that a PCB concentration in a wipe sample result is greater than ($>$) $1\text{ }\mu\text{g}/100\text{ cm}^2$ and this standard cannot be achieved by application of additional coatings or encapsulant, or if an air sample result is $> 300\text{ ng}/\text{m}^3$, MWRA shall contact EPA for further discussion and direction on additional measures, if any, that may be necessary at the Site.
 - ii) MWRA shall record a notice on the deed and submit a monitoring and maintenance implementation plan ("MMP") to monitor the long-term effectiveness of the encapsulants (see Conditions 16 and 20).
15. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.
- a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
 - c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60(a).

DEED RESTRICTION AND USE CONDITIONS

16. If PCB concentrations $> 1\text{ ppm}$ in *porous surfaces* remain at the Site, MWRA shall record a notice on the deed to document this fact. Within thirty (30) days of completing the PCB abatement work described in the Notification and authorized in the Approval, MWRA shall submit for EPA review and approval, a draft deed restriction for the Site. The deed restriction shall include: a description of the extent and levels of PCB contamination at the Site following abatement; a description of the actions taken at the Site; a description of the use restrictions for the Site, if applicable; and the long-term

monitoring and maintenance requirements on the Site, which may be addressed by the long-term monitoring and maintenance implementation plan ("MMP", see Condition 20). Within ten (10) business days of receipt of EPA's approval of the draft deed restriction, MWRA shall record the deed restriction. A copy of this Approval shall be attached to the deed restriction.

SALE, LEASE, OR TRANSFER CONDITIONS

17. The Site owner shall notify the EPA of the sale, lease or grant of any real estate interest in the Site, in writing, no later than sixty (60) days prior to such action. This notification shall include the name, address, and telephone number of the new owner(s). In the event that the Site owner sells, leases, or grants any real estate interest affecting a portion of the Site, the Site Owner shall continue to be bound by all the terms and conditions of this Approval, unless EPA allocates some or all of this Approval's responsibilities to the new owner(s), lessee or grantee. The notification procedures are as follows:
 - a. The new owner(s), lessee or grantee must request, in writing, that the EPA transfer some or all obligations and responsibilities under the Approval to the new owner(s), lessee or grantee;
 - b. The EPA reviews the request, and determines whether to allocate some or all of the obligations and responsibilities under the Approval to the new owner(s), lessee, or grantee; and,
 - c. The new owner(s), lessee or grantee provides written notification to the EPA of its acceptance of and intention to comply with the terms and conditions of the Approval or new approval, should EPA deem a new approval is necessary. The Approval or new approval may be withdrawn if the EPA does not receive written notification from the new owner(s), lessee or grantee of its acceptance of, and intention to comply with, the terms and conditions of the Approval or new approval within thirty (30) days of its receipt of the Approval or the new approval. Under such circumstances, all terms and conditions of this Approval will continue to be binding on the Site owner.
18. In the event that the sale, lease or grant of a real estate interest in the Site will involve or result in a change in the use of the Site, EPA may revoke, suspend, and/or modify this Approval or the new approval if it finds, due to the change in use, that this risk-based disposal action will not be protective of health or the environment. The new owner or grantee shall record any amendment to the deed restriction, resulting from any approved modification(s), within sixty (60) days of such change(s).
19. In any sale, lease or grant of a real estate interest in the Site, the Site owner shall retain sufficient access rights to enable it to continue to meet its obligations under this Approval, except as provided above.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

20. Within thirty (30) days of completion of the PCB abatement work authorized under this Approval, MWRA shall submit for EPA's review and approval, and thereafter implement, a long-term MMP for the surface encapsulants and for indoor air that includes the following:
 - a. a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and reporting requirements.
 - b. a communications component which details how the maintenance and monitoring results will be communicated to the Site users.
 - c. submission of monitoring results to EPA. Based on its review of the monitoring results, EPA may determine that modification to the MMP is necessary in order to monitor and/or evaluate the long-term effectiveness of the encapsulants.
 - c. continuation of activities required under the MMP until EPA determines, in writing, that such activities are no longer necessary.
21. Any modification(s) in the plan, specifications, or information submitted by MWRA, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. MWRA shall inform the EPA of any modification, in writing, at least ten (10) business days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this decontamination and risk-based disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from MWRA to make a determination regarding potential risk.
22. MWRA shall record any amendment to the deed restriction, resulting from any approved modification, within sixty (60) days of such modification (see Condition 16).
23. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
24. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

25. MWRA shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by MWRA to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

RECORDKEEPING AND REPORTING CONDITIONS

26. MWRA shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the decontamination and disposal and the analytical sampling shall be established and maintained by MWRA in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.
27. MWRA shall submit a final report to the EPA within 90 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities, including photo documentation; the characterization and verification sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and/or bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer. The report shall also include a copy of the recorded deed restriction and a certification signed by an MWRA official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.
28. As required under Condition 20 of this Approval, MWRA shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the final MMP to be approved by EPA.
29. Required submittals shall be mailed to:
- Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 – (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527 / Facsimile: (617) 918-0527
30. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

END OF ATTACHMENT 1